DETERMINATION OF RATE OF SPREAD TACK COAT

	:	CP-RW-2020-01-31-91 Dated: 28-12-19
Name	:	[illegible]
	:	Executive Engineer, Karnataka Rural Infrastructure Development Limited, #201, 2nd Cross Road, 7th C Main, 3rd Block, 3rd Phase, Rajajinagar, Bangalore-560010
Reference	:	EE (PW) TEND W C 001166 2019-20
Receipt	:	27-12-19
Mix	:	Tack coat
test	:	27-12-19

Sl No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	M	0.30 x 0.30	0.30 x 0.30
2	Area of Plate (a)	Sq mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.75	0.745
4	Final weight of plate after application of tack Coat (c)	Kg	0.830	0.835
5	Weight of tack Coat (d=c-b)	Kg	0.080	0.090
6	Rate of spread of tack coat	Kg/sq m	0.889	1.000
7	Average	Kg/sq m	0.944	
8	Specified Limit	Kg/sq m	0.850 Kg/sq m	

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No : TC 5548

TEST REPORT ON BITUMEN

Format No: CP/TP/01

	:	CP-RW-2020-01-31-90
Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No 05
	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
mer's Reference	:	BBMP/EE/BTP/WO/129/2019-20
of Receipt	:	06-12-19
ple Type	:	Bitumen
rence to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
of test	:	06-12-19

Date: 07-12-19

st Results

Sno	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	64	60 to 70
2	Softening Point, °C	51.2	Min. 40°C
3	Ductility, cm	98	Min. 75cm
4	Flash point, °C	246	Min. 220°C
	Fire point, °C	272	

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Lab ID : CP-RW-2020-01-31-80 Date: 30-12-19

AFTER EXTRACTION Trail-1

Total Weight of the Sample(gm) : 470

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specified limits as per MORTH specification table 500-2(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.8	86.2	70-88
4.75	112	178	37.4	62.6	53-71
2.36	88	266	55.9	44.1	42-58
1.18	29	295	62.0	38.0	34-48
0.6	11	306	64.2	35.8	26-38
0.3	46	352	73.8	26.2	18-28
0.15	45	397	83.2	16.8	12-20
0.075	55	452	94.8	5.2	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 470

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specified limits as per MORTH specification table 500-2(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.9	86.1	70-88
4.75	112	178	37.4	62.6	53-71
2.36	88	266	55.9	44.1	42-58
1.18	29	295	62.0	38.0	34-48
0.6	11	306	64.3	35.7	26-38
0.3	46	352	73.9	26.1	18-28
0.15	45	397	83.4	16.6	12-20
0.075	55	452	95.0	5.0	4-10

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#8, 4TH MAIN MALLESWARAM, BANGALORE-3

Certificate No: TC-5

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part I) 1963 (RA 2011)

Lot ID : CP-RW-2020-01-31-09

Date: 30.12.19

Project Name : Improvements to Roads and Drains at Srinivasapura Village in Ward No 08

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, # 280, 59th Cross Road, 17th 'C' Main Road, 3rd 'V' Block, Rajajinagar, Bangalore 560010

Customer Reference : BBMP/EE/BTP/WO 129/2019-20

Date of Receipt : 27-12-19

Type of Mix : BC (Bituminous Concrete)

Date of test : 27-12-19

SLno	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	477	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	4.60	4.80
4	Average percentage	%	4.7	

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Certificate No: TC-5548

TESTS RESULTS ON STABILITY OF MIX

D	:	CP-RW-2020-01-31-90 Date: 19-12-19
ject Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
ncy	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
stomer Reference	:	BBMP/EE/BTP/WO 129 2019-20
te of Receipt	:	16-12-19
pe of Mix	:	BC (Bituminous Concrete)
te of test	:	16-12-19

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.14	11.13	10KN(min)
2	Marshal flow at 60°C, mm	3.52	3.51	2-4
3	Percent air Voids	4.82	4.83	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
5	Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
6	Density, g/cc	2.25	2.26	–

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Certificate No.: TC-5543

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

: **CP-RW-2020-01-31-90** **Date: 19-12-19**

Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

er Reference : BBMP/EE/BTP/WO/129/2019-20

of Receipt : 16-12-19

of Mix : BC (Bituminous Concrete)

of test : 16-12-19

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.4	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	11.8		
Strength	Aggregate Impact Value	22.1	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.68	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.21	Maximum 2%	IS:2386 Part III

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TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	CP-RW-2020-01-31-90 Date: 19-12-19
Project Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	16-12-19
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	16-12-19

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

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Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2020-01-31-90
Project Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	16-12-19
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	16-12-19
Oven Dry Weight	:	5000 Grams

Date: 18-12-19

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

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: CP-RW-2020-01-31-90 Date: 24-12-19

AND

AFTER EXTRACTION(Trail-1)

Weight of Sample : 470 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	38	38	8.1	91.9	90-100
13.2	147	185	39.4	60.6	56-88
4.75	191	376	80.0	20.0	16-36
2.36	28	404	86.0	14.0	4-19
0.3	32	436	92.8	7.2	2-10
0.075	31	467	99.4	0.6	0-8

AFTER EXTRACTION(Trail-2)

Weight of Sample : 465 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0.0	100.0	100
19	38	38	8.2	91.8	90-100
13.2	147	185	39.8	60.2	56-88
4.75	191	376	80.9	19.1	16-36
2.36	28	404	86.9	13.1	4-19
0.3	32	436	93.8	6.2	2-10
0.075	31	467	100.4	-0.4	0-8

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM (IS 2386:(Part 1) 1963 (RA2011)

	:	CP-RW-2020-01-31-90 Date: 24-12-19
Project Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	23-12-19
Type of Mix	:	BM (Bituminous Macadam)
Date of test	:	23-12-19

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	470	465
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6	7.00
4	Average percentage	%	6.50	

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Quality Manager

TESTS RESULTS ON STABILITY OF MIX

Date: 13-12-19

LID	:	CP-RW-2020-01-31-90
Project Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	10-12-19
Sample ID No	:	2018-01-03-01/01
Type of Mix	:	BM (Bituminous Mecadam)
Date of test	:	10-12-19

The results of the tests conducted on the Bituminous Macadam mix sample are as follow

SLNo	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.29	11.82	9KN(Min)
2	Marshal flow at 60°C, mm	3.54	3.87	2-4
3	Percent air Voids	4.56	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.54	14.76	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	70.28	65-75
6	Density, g/cc	2.42	2.40	–

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Certificate No.: TC-5548

ST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

	: CP-RW-2020-01-31-90	Date: 13-12-19
ject Name	: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.	
ency	: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010	
stomer Reference	: BBMP/EE/BTP/WO/129/2019-20	
te of Receipt	: 10-12-19	
pe of Mix	: BM(Bitumnous Macadam)	
te of test	: 10-12-19	
pe of Binder	: 60/70	
of Binder Used	: 5.0%	
eight of Aggregate	: 200.0 gm	
eight of Binder	: 10.0 gm	
Temperature of water bath	: 40°C	

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

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Quality Manager

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS MACADAM

: CP-RW-2020-01-31-90 **Date: 13-12-19**

Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

er Reference : BBMP/EE/BTP/WO/129/2019-20

Receipt : 10-12-19

Mix : BM (Bituminous Macadam)

Test : 10-12-19

Table 500-6 : Physical Requirements fo Coarse Aggregate for Bituminous Macadam

Property	Test	Result	Specification	Method of Test
tical Shape	Flakiness Index	13.8	Combined Flakiness & Elongation Index for BM is Maximum 35%	IS:2386 Part I
	Elongation Index	7.2		
Strength	Aggregate Impact Value	25.2	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.51	Maximum 2.7	IS:2386 Part III
ter Absorption	Water Absorption	0.17	Maximum 2%	IS:2386 Part III

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TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

: CP-RW-2020-01-31-90 Date: 12-12-19

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Name : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/WO/129/2019-20

ver Reference : 10-12-19

of Receipt : BM-Plant (Bituminous Macadam)

of Mix : 10-12-19

of test : 5000

t of Sample(gm)

Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	165	165	3.3	96.7	90-100
13.2	512	677	13.5	86.5	56-88
4.75	2759	3436	68.7	31.3	16-36
2.36	911	4347	86.9	13.1	4-19
0.3	358	4705	94.1	5.9	2-10
0.075	232	4937	98.7	1.3	0-8
PAN	63	5000	100.0	0.0	0

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| Tel : +91 80 23444801 | e : rechan6630@yahoo

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

	:	CP-RW-2020-01-31-90 Date: 30-11-19
Project Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	28-11-19
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	28-11-19

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

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TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

: CP-RW-2020-01-31-90 Date: 30-11-19

: Improvements to Roads and Drains at Srinivasapura Village in Ward No.59

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #239, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/WO/129/2019-20

: 28-11-19

: Coarse Aggregate for WMM (Wet Mix Macadam)

: 28-11-19

S.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
		(B/A)*100	24.6	24.7
5	Aggregate impact value	Pecentage	24.6	
6	Aggregate impact value (Mean of two tests)			

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TEST RESULTS OF GRADATION FOR WMM

	: CP-RW-2020-01-31-90	Date: 30-11-19
	: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.	
Name	: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010	
Reference	: BBMP/EE/BTP/WO/129/2019-20	
of Receipt	: 28-11-19	
of Mix	: WMM (Wet Mix Macadam)	
of test	: 28-11-19	
Dry Weight	: 11000 Grams	

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	315	315	2.9	97.1	95-100
22.4	2259	2574	23.4	76.6	60-80
11.2	2179	4753	43.2	56.8	40-60
4.75	2251	7004	63.7	36.3	25-40
2.36	1621	8625	78.4	21.6	15-30
0.6	623	9248	84.1	15.9	8-22
0.075	1338	10586	96.2	3.8	0-5

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Quality Manager

End of Report

e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

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Certificate No :

Format No: CPTF 01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 Date: 02/01/2020

: Improvements to Roads and Drains at Gudivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/TWO/129/2019-20

: 07-12-19

: Cement Concrete Pavement

: 150X150X150 mm

: M20 / 28 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 02/01/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	05/12/2019	02/01/2020	150.05 X 149.48 X 151.01	22431	8.953	520.5	23.2	23.3
2	Cement Concrete Pavement	M20	05/12/2019	02/01/2020	149.58 X 150.34 X 151.62	22488	8.147	513.6	22.8	
3	Cement Concrete Pavement	M20	05/12/2019	02/01/2020	149.25 X 150.08 X 149.07	22399	8.500	535.0	23.9	

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Quality Manager

****End of Report****

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AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No : TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 **Date: 12/12/2019**

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/WO/129/2019-20

: 07-12-19

: Cement Concrete Pavement

: 150X150X150 mm

: M20 / 7 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 12/12/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.07 X 151.31 X 150.09	22858	8.017	425.2	18.6	18.6
Cement Concrete Pavement	M20	05/12/2019	12/12/2019	150.01 X 150.16 X 150.58	22525	8.915	425.2	18.9	
Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.58 X 149.56 X 149.75	22670	8.970	415.8	18.3	

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

CIVIL PRO

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5543

Format No. CP/TF 01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 02/01/2020

Lab ID : CP-2020-01-31-90

Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd. #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 07-12-19

Customer ID : Cement Concrete Pavement

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 02/01/2020

SL No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	05/12/2019	02/01/2020	150.39 X 150.60 X 151.79	22649	8.953	529.3	23.4	23.3
2	Cement Concrete Pavement	M20	05/12/2019	02/01/2020	150.91 X 149.00 X 150.59	22485	8.147	512.8	22.8	
3	Cement Concrete Pavement	M20	05/12/2019	02/01/2020	151.44 X 149.25 X 150.03	22601	8.500	536.7	23.7	

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Authorized Signatory
Quality Manager

****End of Report****

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 **Date: 12/12/2019**

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/WO/129/2019-20

: 07-12-19

: Cement Concrete Pavement

: 150X150X150 mm

: M20 / 7 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 12/12/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.95 X 150.60 X 151.06	22883	8.017	420.9	18.4	18.4
Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.28 X 151.44 X 150.49	22910	8.915	433.1	18.9	
Cement Concrete Pavement	M20	05/12/2019	12/12/2019	150.34 X 150.61 X 149.73	22642	8.970	408.1	18.0	

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Quality Manager

****End of Report****

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No: TC-5548

Format No: CP/TL/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 **Date: 02/01/2020**

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP EE/BTP/WO 129/2019-20

: 07-12-19

: Cement Concrete Pavement

: 150X150X150 mm

: M20 / 28 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 02/01/2020

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Cement Concrete Pavement	M20	05/12/2019	02/01/2020	151.27 X 149.36 X 150.87	22593	8.953	525.3	23.2	23.3
Cement Concrete Pavement	M20	05/12/2019	02/01/2020	149.76 X 150.69 X 151.43	22566	8.147	517.8	22.9	
Cement Concrete Pavement	M20	05/12/2019	02/01/2020	149.12 X 151.51 X 150.15	22593	8.500	538.7	23.8	

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Quality Manager

****End of Report****

CIVIL PRO

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No TC-5548

Format No: CP/TL/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 Date: 12/12/2019

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Name : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

ner's Reference : BBMP/EE/BTP/WO/129/2019-20

Receipt : 07-12-19

ner ID : Cement Concrete Pavement

e Type /Size : 150X150X150 mm

e grade/Age : M20 / 7 Days Compressive Strength

erence to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

e of test : 12/12/2019

Sl. No	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.33 X 151.15 X 149.66	22873	8.017	424.9	18.6	18.6
2	Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.06 X 150.05 X 151.34	22668	8.915	426.9	18.8	
3	Cement Concrete Pavement	M20	05/12/2019	12/12/2019	151.38 X 149.54 X 150.92	22638	8.970	413.5	18.3	

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

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Authorized Signatory
Quality Manager

****End of Report****

Format No: CP/TE/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 **Date: 30/12/2019**

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Name : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

y Reference : BBMP/EE/BTP/WO/129/2019-20

Receipt : 04-12-19

ner ID : Cement Concrete Pavement

Type /Size : 150X150X150 mm

grade/Age : M20 / 28 Days Compressive Strength

nce to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

f test : 30/12/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Cement Concrete Pavement	M20	02/12/2019	30/12/2019	151.82 X 151.64 X 149.14	23022	8.953	542.6	23.6	23.2
Cement Concrete Pavement	M20	02/12/2019	30/12/2019	149.45 X 150.88 X 151.55	22548	8.147	502.4	22.3	
Cement Concrete Pavement	M20	02/12/2019	30/12/2019	151.99 X 150.96 X 151.32	22943	8.500	542.5	23.6	

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ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2020-01-31-90

Date: 09/12/2019

Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 04-12-19

Customer ID : Cement Concrete Pavement

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 09/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	151.72 X 149.54 X 151.47	22688	8.017	412.2	18.2	18.2
2	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	151.15 X 150.15 X 151.93	22695	8.915	408.8	18.0	
3	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	149.96 X 149.22 X 149.92	22377	8.970	410.4	18.3	

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****End of Report****

Format No: CP/TF.01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 **Date: 30/12/2019**

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP EE/BTP WO 129 2019-20

: 04-12-19

: Cement Concrete Pavement

: 150X150X150 mm

: M20 / 28 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 30.12.2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Cement Concrete Pavement	M20	02.12.2019	30/12/2019	149.35 X 151.50 X 149.28	22626	8.953	521.5	23.0	23.1
Cement Concrete Pavement	M20	02/12/2019	30/12/2019	151.01 X 149.54 X 150.89	22581	8.147	509.6	22.6	
Cement Concrete Pavement	M20	02/12/2019	30/12/2019	149.16 X 149.77 X 151.22	22339	8.500	527.7	23.6	

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Quality Manager

****End of Report****

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4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 09/12/2019

Lab ID	:	CP-2020-01-31-90
Project Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer's Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	04-12-19
Customer ID	:	Cement Concrete Pavement
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M20 / 7 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	09/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	149.24 X 150.35 X 151.80	22438	8.017	407.8	18.2	18.5
	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	151.18 X 150.94 X 149.22	22820	8.915	422.0	18.5	
	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	150.64 X 151.20 X 149.00	22776	8.970	431.4	18.9	

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Quality Manager

****End of Report****

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	: CP-2020-01-31-90	Date: 30/12/2019
Project Name	: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.	
Agency	: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010	
Customer's Reference	: BBMP/EE/BTP/WO/129/2019-20	
Date of Receipt	: 04-12-19	
Customer ID	: Cement Concrete Pavement	
Sample Type /Size	: 150X150X150 mm	
Sample grade/Age	: M20 / 28 Days Compressive Strength	
Reference to BIS codes	: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5	
Date of test	: 30/12/2019	

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	02/12/2019	30/12/2019	151.10 X 150.76 X 151.20	22779	8.953	538.6	23.6	23.2
2	Cement Concrete Pavement	M20	02/12/2019	30/12/2019	150.16 X 151.50 X 150.65	22750	8.147	504.6	22.2	
3	Cement Concrete Pavement	M20	02/12/2019	30/12/2019	151.12 X 150.14 X 149.15	22690	8.500	541.7	23.9	

ಸಹಾಯಕ ಅಭಿಯಂತರರು
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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ವಲಯ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 09/12/2019

Lab ID : CP-2020-01-31-90
Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Customer's Reference : BBMP/EE/BTP/WO/129/2019-20
Date of Receipt : 04-12-19
Customer ID : Cement Concrete Pavement
Sample Type /Size : 150X150X150 mm
Sample grade/Age : M20 / 7 Days Compressive Strength
Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test : 09/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	150.47 X 150.19 X 149.72	22600	8.017	420.4	18.6	18.3
2	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	150.50 X 151.40 X 150.52	22786	8.915	415.7	18.2	
3	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	151.17 X 149.35 X 149.22	22576	8.970	406.5	18.0	

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Authorized Signatory
Quality Manager

****End of Report****

CIVIL PRO
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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5543

Format No: CP/TE/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2020-01-31-90 Date: 30/12/2019

Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 04-12-19

Customer ID : Cement Concrete Pavement

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 30/12/2019

Sl No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	02/12/2019	30/12/2019	151.53 X 149.24 X 150.48	22614	8.953	529.4	23.4	23.2
2	Cement Concrete Pavement	M20	02/12/2019	30/12/2019	150.35 X 149.87 X 150.59	22533	8.147	510.6	22.7	
3	Cement Concrete Pavement	M20	02/12/2019	30/12/2019	149.27 X 150.36 X 150.25	22445	8.500	530.3	23.6	

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Authorized Signatory
Quality Manager

****End of Report****

CIVIL PRO

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-0548

Format No: CP/TR/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2020-01-31-90 Date: 09/12/2019

Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 04-12-19

Customer ID : Cement Concrete Pavement

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 09/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	149.10 X 150.39 X 151.52	22423	8.017	424.6	18.9	18.8
2	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	149.16 X 150.19 X 151.57	22402	8.915	424.7	19.0	
3	Cement Concrete Pavement	M20	02/12/2019	09/12/2019	149.29 X 150.82 X 150.55	22516	8.970	418.2	18.6	

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

CIVIL PRO
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4, 7TH MAIN MALLESWARAM, BANGALORE - 3

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2020-01-31-90 Date : 23/12/2019

Project Name : Improvements to Roads and Drains at Srinivasapura Village in Ward No.65

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 10th Cross Road, 17th C Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 27-11-19

Customer ID : Culvert Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete CL5

Date of test : 23/12/2019

SL No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Concrete	M20	25/11/2019	23/12/2019	151.04 X 149.09 X 150.92	22518	8.953	539.0	23.9	23.3
2	Culvert Concrete	M20	25/11/2019	23/12/2019	151.08 X 149.82 X 150.28	22634	8.147	501.0	22.1	
3	Culvert Concrete	M20	25/11/2019	23/12/2019	150.00 X 151.98 X 151.64	22797	8.500	542.4	23.8	

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Quality Manager

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2020-01-31-90 Date: 02/12/2019

Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 27-11-19

Customer ID : Culvert Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 02/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Concrete	M20	25/11/2019	02/12/2019	151.18 X 149.88 X 150.11	22659	8.017	422.2	18.6	18.5
2	Culvert Concrete	M20	25/11/2019	02/12/2019	150.36 X 150.44 X 150.66	22620	8.915	424.2	18.8	
3	Culvert Concrete	M20	25/11/2019	02/12/2019	150.19 X 150.07 X 151.70	22539	8.970	408.8	18.1	

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Certificate No.: TC-554

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2020-01-31-90 Date: 23/12/2019

: Improvements to Roads and Drains at Srinivarpura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/WO/129/2019-20

: 27-11-19

: Culvert Concrete

: 150X150X150 mm

: M20 / 28 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 23/12/2019

S No	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Concrete	M20	25/11/2019	23/12/2019	149.48 X 150.39 X 149.95	22480	8.953	536.9	23.9	23.1
2	Culvert Concrete	M20	25/11/2019	23/12/2019	151.17 X 149.09 X 149.58	22537	8.147	502.3	22.3	
3	Culvert Concrete	M20	25/11/2019	23/12/2019	149.97 X 149.70 X 151.06	22451	8.500	517.2	23.0	

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Certificate No : [illegible]

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

b ID	:	CP-2020-01-31-90 **Date: 02/12/2019**
oject Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
ency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
stomer's Reference	:	BBMP/EE/BTP/WO/129/2019-20
te of Receipt	:	27-11-19
stomer ID	:	Culvert Concrete
mple Type /Size	:	150X150X150 mm
mple grade/Age	:	M20 / 7 Days Compressive Strength
ference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
te of test	:	02/12/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Culvert Concrete	M20	25/11/2019	02/12/2019	151.02 X 149.79 X 149.58	22621	8.017	425.2	18.8	18.6
2	Culvert Concrete	M20	25/11/2019	02/12/2019	150.01 X 149.52 X 151.06	22430	8.915	406.9	18.1	
3	Culvert Concrete	M20	25/11/2019	02/12/2019	151.22 X 150.62 X 149.09	22777	8.970	426.8	18.7	

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Page 1/1

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TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2020-01-31-90 Date: 17/12/2019

Project Name : Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

Customer's Reference : BBMP/EE/BTP/WO/129/2019-20

Date of Receipt : 21-11-19

Customer ID : Drain Side Wall Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 17/12/2019

Sl No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M20	19/11/2019	17/12/2019	151.30 X 149.63 X 150.71	22640	8.953	542.9	24.0	23.3
2	Drain Side Wall Concrete	M20	19/11/2019	17/12/2019	150.66 X 151.26 X 150.01	22789	8.147	515.9	22.6	
3	Drain Side Wall Concrete	M20	19/11/2019	17/12/2019	149.39 X 150.02 X 149.80	22412	8.500	521.5	23.3	

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TEST REPORT OF CEMENT CONCRETE CUBES

Format No: CP/TF/01

: CP-2020-01-31-90

Date: 26/11/2019

: Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.

: Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010

: BBMP/EE/BTP/WO/129/2019-20

: 21-11-19

: Drain Side Wall Concrete

: 150X150X150 mm

: M20 / 7 Days Compressive Strength

: IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

: 26/11/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
Drain Side Wall Concrete	M20	19/11/2019	26/11/2019	150.20 X 149.56 X 150.14	22464	8.017	415.4	18.5	18.6
Drain Side Wall Concrete	M20	19/11/2019	26/11/2019	151.02 X 150.16 X 149.13	22678	8.915	416.4	18.4	
Drain Side Wall Concrete	M20	19/11/2019	26/11/2019	151.10 X 149.13 X 149.29	22534	8.970	424.4	18.8	

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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 17.12.2019

Lab ID	:	CP-2020-01-31-90
Agency Name	:	Improvements to Roads and Drains at Srinivaspura Village in Ward No.05.
Client	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th C Main Road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010
Contractor's Reference	:	BBMP/EE/BTP/WO/129/2019-20
Date of Receipt	:	21-11-19
Specimen ID	:	Drain Side Wall Concrete
Concrete Type Size	:	150X150X150 mm
Concrete grade/Age	:	M20 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	17/12/2019

Sl. No	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Side Wall Concrete	M20	19/11/2019	17/12/2019	151.44 X 151.76 X 150.95	22981	8.953	543.4	23.6	23.2
2	Drain Side Wall Concrete	M20	19/11/2019	17/12/2019	151.67 X 149.34 X 151.80	22651	8.147	515.8	22.8	
3	Drain Side Wall Concrete	M20	19/11/2019	17/12/2019	149.58 X 150.04 X 149.23	22443	8.500	519.2	23.1	

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Certificate No. [illegible]

TEST REPORT OF CEMENT CONCRETE CUBES

[illegible] : CP/2020/01-11-20

Date: 26.11.2019

[illegible] : [illegible]

[illegible] : [illegible]

[illegible]'s Reference : BBMP/Addl/EE/BTP/WO/1220/2019-20

[illegible] of Receipt : 21-11-19

[illegible]tomer ID : Drain Side Wall Concrete

[illegible]mple Type /Size : 150X150X150 mm

[illegible]mple grade/Age : M20 / 7 Days Compressive Strength

[illegible]ference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete C.S

[illegible]te of test : 26/11/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm²)	Average Compressive Strength (N/mm²)
1	Drain Side Wall Concrete	M20	19/11/2019	26/11/2019	149.35 X 149.52 X 151.51	22332	8.017	412.5	18.5	
2	Drain Side Wall Concrete	M20	19/11/2019	26/11/2019	151.63 X 151.31 X 151.00	22944	8.915	421.8	18.4	18.5
3	Drain Side Wall Concrete	M20	19/11/2019	26/11/2019	150.03 X 151.70 X 151.33	22759	8.970	421.7	18.5	

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